

CLAIMS

1. A method of proliferating eukaryotic cells, comprising the step of introducing synthetic low density lipoprotein (sLDL) particles to a cell culture and 5 allowing cells in the culture to proliferate.

2. The method according to claim 1 wherein the sLDL particles are peptide free and enable at least a 20% increase in cell number to occur in comparison to cells 10 grown in the presence of foetal calf serum (FCS) or other serum-free lipid supplements.

3. The method according to claim 1 wherein the sLDL particles comprise a peptide and enable at least a 15 50% increase in cell number to occur in comparison to cells grown in the presence of foetal calf serum (FCS) or other serum-free lipid supplements.

4. A method of identifying an sLDL particle for 20 use as a cell growth lipid supplement for a particular cell type, comprising the steps of:

- a) providing an initial cell culture containing cells of the particular cell type;
- b) adding sLDL particles of defined composition 25 and concentration to said culture medium;
- c) allowing the cells to proliferate for a period of time; and
- d) determining a level of proliferation of the cells.

5. The method according to claim 4 wherein the cells are mammalian cells, such as U937, NSO, CHO, fibroblasts, hybridoma cell, myeloma cells and cellular assemblies such as embryos or pancreatic cells.

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6. A cell culture medium comprising sLDL particles according to the present invention which particles comprise cholesterol and/or cholesterol ester wherein the total concentration of cholesterol and cholesterol ester 10 is greater than 0.009 mg/ml of culture medium.

7. The method according to claim 6 wherein the total cholesterol content is greater than 0.018 mg/ml.

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8. Use of sLDL particles as a supplement to facilitate the growth of NSO cells.

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